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ABSTRACT

This paper reports on a two generation study which began in 1965 with the interviewing of 223 black men who were in their thirties. The study incorporates data on the wives and children of the men. It focuses on the extent to which the school achievements of one generation are repeated in the following generation and the extent to which such transmission appears to be explained by circumstances in the child's home life. The original sample was composed of men born in St. Louis in the 1930's. Based on the ages of the children reported by these men, those children who would be at least 18 years of age by the end of 1973 were chosen. The results of the study show that mothers and fathers tend to pass on to their children their own likelihood to be truant, to have low IQs, and to drop out of high school. The parents' school problems were powerful predictors of their own later problems. Elementary school problems predicted the high school dropout. Mothers' elementary school truancy predicted their later behavior problems. Fathers' elementary school truancy predicted they would marry a woman with behavior problems. These observations seem to rule out the possibility that the genetic inheritance of low intelligence, by itself, explains the transmission of school problems from one generation to the next. (Author/AM)

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SCHOOL ACHIEVEMENT IN TWO GENERATIONS: A STUDY OF 88 URBAN BLACK FAMILIES*

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A STUDY OF 88 URBAN BLACK FAMILIES

Introduction

It is well established that inner city minority group school children have poor school performance compared with less impoverished children. They test lower on achievement tests, attend school more erratically, and are more likely to drop out before completing high school. Remedial efforts have been extensive but so far have not apparently been highly successful. Explanations for minority children's poor school performance have been sought in the school system itself, which has been said to make demands inappropriate for lower class children and to provide them with inferior teachers and learning environments, in the effects of the larger social system, which by discrimination, prejudice, and reduced life chances is thought to produce feelings of inferiority and hopelessness in these children which in turn prevent their learning and striving for success; in the socialization practices of their parents; and in genetic hypotheses about inborn inferiority of intelligence.

Although the overall observation of relatively more school problems among the socially disadvantaged seems indisputable, the fact remains that many inner city minority group children have reasonable success in school. Most finish high school on time, and increasing numbers are entering college and going on to professional careers. While there is clear disadvantage to starting off poor and black, these effects do not uniformly prevent achievement. Are those who perform well merely lucky—or do they have extraordinarily strong characters or intellect—or are there perhaps identifiable families histories and environments that might account for their success?

The purpose of the current paper is to explore to what degree the parents' own history of school success accounts for the variation observed.

We will examine the possibility that there is transmission of a propensity for school problems from one generation to the next, and investigate in what kinds of family structures this propensity seems to be expressed.

We have pondered over the selection of a word to encompass the concept that problems in one generation may tend to reappear in the next, but which does not simultaneously connote some hypothesis about why the similarity between generations occurs. We have found no satisfactory candidate. Our use of the term "transmission" is not intended to imply any prejudgment as to what the mechanisms of transmission might be. A similarity between generations could depend on genetic factors, perinatal environments, social stress, parental example, direct exhortation, the teaching of school-relevant skills, teachers' response to the child based on family reputation, or some combination of these. Our goal will be to find out whether there is evidence for similarity between the generations and the conditions under which it occurs.

This paper reports a two generation study which began in 1965 with the interviewing of 223 black men who were in their thirties. The study has now incorporated data on the wives and children of the men, including information on their academic performance and police difficulties. We have analyzed the data on police difficulties elsewhere (Robins et al., 1975) and are concerned here with the school achievement of the second generation. Our interest is the extent to which the school achievements of one generation are repeated in the following generation and the extent to which such transmission appears to be explained by other circumstances in the child's home life. School outcomes—whether difficulties or success—are defined here to include elementary school academic problems (being held back from regular advancement), excessive absence (being truant), IQ, and high school graduation.

The Two Generation Study

Our original sample was comprised of men born in St. Louis in the 1930's. We were able to expand that study to include the families of procreation because during our interviews we had asked the men for the names and years of birth of their legitimate children, and those of the children's mothers. We also asked whether they had illegitimate children, recording identifying information on such offspring if it was volunteered.

Based on the ages of the children reported in interview, we chose for our family study those children who would be at least 18 years of age by the end of 1973. We chose only these older children to be reasonably sure that any potential graduate had had time to graduate

and, similarly, that all would be through the age of risk of becoming a juvenile delinquent. To be certain that we would accurately identify the children in the records we searched, we first requested birth certificates to obtain exact spelling of names and exact dates of birth. We then attempted to locate all their police, juvenile court, and school records. At the same time that we searched for children's records, we updated their fathers' police records and obtained their mothers' police and school records.

The men interviewed had been selected from public school records for a study of the childhood predictors of the young adult adjustment of urban black men. Everyone interviewed had been born and reared in St. Louis, attended public schools in St. Louis for at least six years, and identified St. Louis or its environs as their residence at some time during the six years prior to interview. Further, all were required to have an elementary school IQ test score of 85 or higher.

Of the 223 men interviewed, 97 (43%) reported one or more children meeting our age requirement. Because the men were young (in their thirties) at interview, no child fathered after the age of 25 would have been old enough by December, 1973 to be included in the study. Thus the children discussed here were all born early in the men's reproductive histories. Not surprisingly, their mothers were even younger. As Table 1 shows, more than a third were born before the mother was 19 years of age, while 18% were born before the father was 19 years of age. The mother was under 21 at the birth of more than two-thirds of these children, and the father was under 21 in about half.

TABLE 1

Because we had chosen these children for our own convenience from those born to very young fathers, we wondered whether we were thereby

limiting the generalizability of our findings. Perhaps men who father children so young are atypical. In addition, children born to young men may not be representative of all the children these men will eventually father. We cannot answer the second question, since we have no information about later-born children, but we can compare men with eligible children to men without eligible children. To do this, we examined potential correlates of early fatherhood from the many variables we had measured describing the childhood and adolescence of these men. Very few of these variables were related in a statistically significant way to the father's having eligible children (Table 2). For instance, men who had children eligible for our study did not differ from the remainder in IQ, in elementary school problems, in early sex experience, in early drinking, in delinquency, or in coming from broken homes. Most of the differences we found were self-evident ones. More men with eligible children had married before 18, left home before 18, and failed to graduate from high school. The young marriages and concomitant leaving home and quitting school had often been occasioned by the girl friend's pregnancy.

The finding that the men who had children early were similar except with respect to characteristics immediately explained by becoming fathers at a relatively early age means that we have no a priori reason to believe these children are atypical. Still, there might be a problem in generalizing those results concerning the intergenerational transmission of school problems. The fact that a number of these men dropped out of high school simply because they became fathers should reduce the concordance between their high school graduation and their children's below the concordance we would find in a general population, where high

school dropout would be less often precipitated by the crisis of early fatherhood, and proportionately more by school-related behaviors (academic inability and rejection of the school regimen). We might anticipate, then, that our estimate of the degree of transmission of elementary school variables would be more accurate than our estimate for high school graduation. We might also expect that we would overestimate the improvement in high school graduation rates that has taken place in the last generation. Since the sons and daughters of our sample rarely became parents during their high school years, we would expect to find an increased rate of high school graduation for them as compared with their own parents even if graduation rates had not risen between generations in the general population. Furthermore, we might find a stronger correlation between elementary school events and high school graduation for the children than for their parents, even if there had been no true increase in that correlation over a generation, since again the crisis of pregnancy would not so frequently have masked the natural correlation between elementary school and high school problems for the second generation.

Because of the confounding of true change with the effects of early parenthood, in the next two tables (Tables 3 and 4) we will look not only at parents and their offspring, but also at the total sample representing the fathers' generation, for whom early parenthood occurred only at its expected rate.

A further difficulty in comparing school success in fathers and children is that the fathers were required to have an IQ of 85 or higher in elementary school to qualify for inclusion in the sample. The children and mothers, of course, are unselected for IQ. For this reason,

we will also present data for mothers and children with IQs of 85 or higher, to allow comparison with the fathers. Otherwise we might falsely attribute lower rates of promotion in elementary school and graduation from high school to sex differences (for mothers) or generational changes (for children) when in fact they resulted only from the wider range of IQs in mothers and children.

School Achievement in the Sample

A. Sex differences. Table 3 shows that in both generations more males than females were held back in elementary school. In parents with IQs of 85 or higher, 46% of fathers vs. 24% of mothers had been held back for at least two quarters. In the children's generation, 64% of all boys vs. 52% of all girls had been held back at least one semester, and the sex difference is maintained when we restrict the comparison to children with IQs of 85 or higher (59% vs. 40%).

No striking differences by sex were found for IQ, truancy, or high school graduation, despite the common impression that truancy is predominantly a male phenomenon.

B. Changes over a generation. It would appear that rates of being held back in elementary school have increased over the last generation (rising from 46% to 59% for males with IQs of 85 or over, from 24% to 40% for females with IQs of 85 or over, and from 38% to 52% for all females), while rates of truancy have declined (from 29% to 14% for males with IQs of 85 or over, from 21% to 8% for females with IQs of 85 or over, and from 22% to 14% for all females). However, these results may be largely an artifact. During the time spanned by these two generations, schools changed from a quarter to a semester

system. Our definition of being held back in the parent generation was at least two quarters repeated. The definition for excessive absence required at least five quarters in which attendance was less than 80%. In the children's generation, the nearest available equivalents were one or more semester held back and three semesters with attendance below 80%. Thus being held back required a single evaluation that the offspring were failing, but two evaluations as failing for parents. With respect to our measure of truancy, parents could accumulate five nonconsecutive quarters, whereas for the children, a single quarter that would have been a borderline case of truancy would not be detected if the attendance was above 80% for the other half of the semester. Further, the semester system, providing only even multiples of quarters, requires the equivalent of six rather than five quarters of absence. In any case, the overall rate of elementary school problems shows remarkably little change.

IQ as measured by group tests in elementary school has also remained much the same, although children's scores are slightly higher than their parents'. In the fathers' generation, the mean IQ for the black male school population had been 85. (Our sample represented the upper half of the IQ distribution.) Our finding that both the mothers and the offspring had mean IQs higher than 85 would argue either for assortative mating plus transmission of IQ between generations or for a higher IQ for women than men in the parent generation and a rise in IQ in the second generation concomitant with an equalization of IQs between the sexes. Some combination of these is also possible. We will be examining the evidence for assortative mating and transmission between generations later in the paper. At this point, however, we

can consider the evidence for a rise in IQs in the second generation.

The interparent mean is generally considered to be the best predictor of children's IQ. This mean was 94, when calculated on the basis of all parent pairs with information on both father and mother. The children of parents for whom both IQs were known had an average IQ of 97. Thus, there is mild evidence for rising IQs over a generation, perhaps as a result of improved socioeconomic status.

As compared with the parents' generation, there has also been an increase in the proportion of offspring graduating from high school, an increase that is not entirely due to the fact that the fathers and mothers of these children sometimes left school because the mother became pregnant. Even as compared with the total sample from the father's generation, children graduated more often, particularly if they had IQs as high as the fathers' generation's. For males with IQs of 85 or higher, graduation rates rose from 59% to 70%.

Relation Between Elementary School Problems and High School Graduation

Our choice of the number of quarters of truancy and being held back to use as our criteria for elementary school problems was made after examining the relationship of school problems and high school graduation in the total male sample from which the fathers came. We found that two or more quarters held back and five or more quarters truant best predicted high school graduation. Table 4 shows that when neither of these elementary school problems existed, 70% of the total sample had graduated from high school. A single problem did not reduce high school graduation very much (to 60%), but the presence of both problems

in elementary school almost precluded high school graduation despite adequate IQs (only 19% graduated).

Table 4 shows that having both elementary school problems was also a powerful predictor of failure to graduate from high school for the subset who became fathers before age 25 and for their sons. For fathers 6% graduated if they had both problems, in contrast to 58% with neither problem. For sons, the respective percentages are 25% and 86%. Furthermore, early fatherhood was associated with a decline in graduation rates both for those with (70% to 58%) and without (19% to 6%) elementary school problems. However, since fatherhood decreased the graduation rate by a similar percentage in the two groups, it only slightly attenuated the predictive power of elementary school performance.

For mothers and daughters the relationship between elementary school problems and high school graduation is below statistical significance, and the associated Phi coefficient is small. However, the presence of both school problems is associated with a smaller percentage graduating for females as well as males. Our failure to find a significant result for females is in part due to the rarity with which a mother or daughter had both types of elementary school problems.

Assortative Mating

Tables 3 and 4 looked at the two generations as a whole, but not at relationships within families. Within families, we can look both for resemblances between parents (assortative mating between the 88 parent pairs) and also at resemblances between parents and their children (transmission between the 159 parent-child pairs). Table 5 examines assortative mating and Table 6 transmission of school success.

The number of cases in Tables 5 and 6 is reduced as compared with Tables 3 and 4 because we can investigate assortative mating and transmission only when information is available for both parents or for both parent and child.

Table 5 shows that assortative mating occurred at a statistically significant level with respect to high school graduation and also with respect to elementary school truancy. It was not significantly present with respect to being held back in elementary school or elementary school IQ, although a trend toward parent similarity also exists for these variables. (In Table 5, parents' IQs are dichotomized; the correlation between fathers' and mothers' exact IQs was +.12, also not significant.) The failure to find the latter two variables significantly associated between parents may depend on our restriction of the fathers' generation sample to men having an IQ of 85 or better in elementary school. If the fathers had shown the full range of IQ scores, there would have been a better chance to detect assortative mating by IQ and its correlate, academic school problems, as evidenced by being held back.

Intergenerational Transmission of School Problems

Table 6 presents information on the transmission between parents and children for the same four aspects of school performance: being held back, truancy, IQ, and high school graduation. The table first shows that there is no evidence that parents' being held back in elementary school is transmitted to their children. For the other three measures of school achievement, however, there is strong evidence for transmission. For boys, truancy was well predicted by both his mother's

and father's truancy in elementary school. The relationship between truancy in fathers and sons, mothers and sons, and both parents and sons is significant at the .001 level. Daughters' truancy was less well predicted, in part because of the small number of truant daughters.

The correspondence in IQ between the generations is also impressive. Mothers' IQs were better predictors of both sons' and daughter's IQs than were fathers'. Fathers' IQ did, however, make a clear contribution to sons' IQ, and probably made an independent contribution to daughters' IQ as well, since the daughters' IQ is more highly correlated with the mean of the parents' IQ than with the IQ of the mother alone.

Although the relationship between parents' and children's high school graduation may have been weakened due to the forced dropout of many parents, it remains substantial. There is some evidence for sex concordance with respect to graduation: father's graduation had a greater effect on his son than on his daughter, and conversely, mother's graduation had a stronger effect on her daughter than on her son. Nonetheless, the direction of the relationship when the sex of the parent and child was not concordant is also positive, if not significant, and having both parents graduate produced higher rates of graduation for both boys and girls than did having only the same-sex parent graduate. When both parents had graduated from high school, both daughters and sons were virtually certain to graduate also. When one parent graduated, two-thirds of the children graduated, and when neither parent had graduated, just over half the children did. Thus having a graduate parent is by no means a requisite for graduation, but having parents who graduated seems virtually to assure their children's graduation.

This strong relationship may seem surprising when we note that the occupational advantages typically associated with higher education for whites occur infrequently in this sample of young black fathers. Among high school graduates, only 22% held a job above the level of clerk (above 48 on Duncan's SEI scale), not statistically significantly different from the nongraduates, 12% of whom had such jobs. Over half (58%) held jobs with an SEI score of 25 or less. Similarly, half (55%) of the nongraduates held such jobs. This lack of impact of education on occupation may be due to early fatherhood's having forced these men to accept whatever job might be available, and to forego additional education and training.

Are We Witnessing Transmission of Individual Problems or Only General School Maladjustment?

Our evidence for the intergenerational transmission of IQ, truancy, and graduation is a likelihood greater than chance that when each of these school problems appears in the parent generation, it will be repeated in their offspring. But we have also shown that within each generation school problems are intercorrelated. Poor attendance, being held back, and low IQ predict failure to graduate from high school for both parents and their offspring. It could be the case that our results stem from a general tendency for poor school performance in one generation to herald poor school performance in the next, and that the correlations we presented between specific problems in the two generations merely reflect this general tendency.

To see whether the true relationship might be such a general one, we developed a global school achievement score for parents and children based on a count of the number of school problems out of the four we have considered: failure to graduate from high school, and in elementary school, an IQ below 90, truancy, and repeating grades. We dichotomized scores for parents and children into none or one of these problems versus two or more. We then found that there was a striking association between generations for our global measure (Table 7A). More than half the children both of whose parents had scores of two or higher had such a score themselves, versus only one in seven when neither parent had such a high score. Since there was transmission of a general tendency to school problems, we need to compare the strength of the association between this global score in one generation and each specific behavior in the other with the strength of the association between the same specific behaviors in two generations. We used the Phi coefficient to assess relative strength of association because while numbers of cases vary, depending on the amount of missing information, the number of degrees of freedom is constant (always two).

TABLE 7A

TABLE 7

As Table 7 shows, the intergenerational association between truancy and IQ was stronger as measured by Phi coefficients than the association between either behavior and the global scores of either generation. Of course, the global factor was also significantly correlated with each specific behavior, in part because it contained it. Parents' graduation was also a better predictor of their child's graduation than was the parents' global performance, although it predicted the child's global performance even better than his graduation.

We can conclude then that the effect of a specific school problem in the parent has an effect on that same school problem in his child that cannot be explained simply by the parents' behavior representing a general tendency toward poor school performance.

UNDERSTANDING TRANSMISSION

We have shown that all measured aspects of school success except failure in elementary school are predicted by the parents' similar behavior. There are many alternative and concurrent pathways through which such intergenerational transmission can take place. It seems highly improbable that the impact of parents' high school graduation, IQ, or truancy on the same outcomes in their children could be entirely a genetic phenomenon, or entirely a matter of the child's modeling his behavior on the parents', or the child's simply fulfilling familial expectations. It seems more reasonable to expect that parents' school success is intimately associated with the quality of the child's environment, and that these aspects of the family environment are additional, and perhaps overriding, influences.

Our next task, then, is to explore family conditions associated with parents' school achievement which might contribute to the explanation

of the transmission to the child of the parent's truancy, IQ, or high school graduation. (We will not discuss elementary school failure further, since we have no evidence for its intergenerational transmission.) Factors we explored included social status (as measured by father's job level), broken home, father's crime and drug abuse, the child's illegitimacy, and the mother's behavior problems (arrests, heavy drinking and promiscuity). Table 8 shows those factors we can consider as candidates for contributing to the transmission of school problems because they were simultaneously correlated with the same school behavior for the child and at least one of his parents.

The transmission of IQ was not susceptible to any of our alternative explanatory variables. We found no factor which was both significantly predicted by a parent's having an elementary school IQ below 90 and predicted that the child's IQ would be that low.

For the transmission of truancy between generations, the only variable which met criteria (i.e., statistically significant association with both child's truancy and at least one parent's truancy) was the mother's behavior problems. Truancy in parents was not a significant predictor that their child would be illegitimate, nor the home broken, nor that the father would have behavior problems (crime or drug use) or a low status job.

On the other hand, there were several possible explanatory variables for the transmission of graduation between generations. Fathers who graduated from high school were significantly less likely to acquire criminal records; to use illicit drugs; to have an illegitimate child; to marry a woman who had been arrested, drank excessively, or had been promiscuous; or to separate from the child's mother. If the mother

graduated from high school, she was not likely to marry a man with a criminal record or to have an illegitimate child. Each of these variables was also correlated with the child's graduation. Among family conditions tested, we could discard only father's job level, because it was not predicted by his own graduation nor did it predict the child's graduation.

Is Transmission of School Achievement Dependent on Family Conditions?

Having identified candidates for explaining transmission between generations of each measure of school achievement, we are now ready to consider whether these factors actually do explain transmission. It may be that the parents' school problems predict that they will be deviant adults, and their adult deviance may in turn predict that the child will repeat his parent's problems. If this is the mechanism, then the parents' school problems should add nothing to the prediction based on the parents' adult deviance: i.e., it should not matter how the parent became deviant as long as he did so. From Table 8 we learned that no family conditions had predicted the transmission of IQ. This leaves us with the transmission of truancy and graduation to consider. To learn whether family conditions associated with parents' school problems explained how transmission occurs, we used Goodman's multivariate contingency table technique (ECTA). It allowed us to ask two questions: first, do family conditions add significantly to the ability of a particular school behavior in the older generation to predict the same behavior in the second generation, and second, does the presence in the parent generation of the particular school problem to be predicted in children significantly improve on the prediction afforded by family

conditions.[1]

Table 9 examines all those family conditions found significantly related both to the parent's and child's school problems, using Goodman's ECTA program. Mother's behavior problems was the one family condition predicting the transmission of truancy from either parent. By ECTA analysis, we find that mother's behavior problems did significantly add to the prediction of truancy in the child beyond simply knowing whether the parent truanted, but did not fully explain whether or not transmission would take place. Parents who truanted in elementary school were more likely to have children who truanted whether or not the mother's truanting forecast her later behavior problems and whether or not the father's truanting forecast that he would marry a woman with behavior problems.

The ECTA analysis of high school graduation showed that each family condition except the child's illegitimacy played a significant role in determining whether or not transmission of parents' graduation would take place. In every case, more favorable environments (father not criminal, not using illicit drugs, home intact, and mother not arrested, alcoholic or promiscuous) enhanced chances that the child would graduate. On the other hand, parents' graduation continued to have an additional effect given each of these family conditions.

From these results, we can conclude that parents' truancy and graduation have a dual impact on children's school histories: they predict family conditions favorable to truancy and graduation and at the same time they have a direct influence. Transmission of graduation appears to be affected by a wide variety of family conditions, while transmission of truancy was affected by only one—mother's behavior

problems. No family conditions were found which played an important role in the transmission of low IQ.

Combining Parents' School Records and Family Circumstances

Our findings thus far indicate that none of these family settings alone completely explained how the transmission of either parent's graduation or truancy occurred. However, it is possible that if the varied adverse circumstances were considered together for graduation and if both parents' contributions were examined simultaneously for graduation and for truancy, we might be able to explain in full how transmission occurred. Therefore, we combined the adverse family circumstances predicting graduation by determining for each child the number of circumstances which had occurred among those we have shown to have an effect independent of the parents' school problems. We also considered the two parents' behavior jointly with respect to their truancy and graduation.

Again, we used Goodman's multivariate contingency table methods.

TABLE 10

We found (TABLE 10) that parents' joint truancy and graduation was transmitted to a degree that could not be explained entirely by the family conditions that we have identified as contributing to children's school problems in addition to the effect of the parents' school problems. On the other hand these family conditions do help to explain the transmission of parents' problems. As shown in Figure 1, those children both of whose parents truanted or both of whose parents graduated have a very high likelihood of having the same behavior. When only one parent truanted, having a mother with behavior problems increased the child's risk of truanting, although most children still did not do so.

When neither parent had truanted, the child was unlikely to truant, although behavior problems in the mother still did increase the risk.

The effect of family conditions on graduation was greatest when only one parent had graduated. When there were many adverse family conditions, the single parent's graduation led to no improvement over having no parent who graduated. When the family had few adverse conditions, graduation rates for the child of a single graduate were almost as high as if both parents had graduated.

DISCUSSION

This study compares the elementary and high school records of two generations of urban blacks. Since the records were independently obtained and scored, similarities between parents and across generations cannot be attributed to any bias in data acquisition. The results show that mothers and fathers tend to be concordant for truancy and high school graduation, and tend to pass on to their children their own likelihood to truant, to have low IQs, and to drop out of high school. Similarity with respect to failure in elementary school is not clearly a basis for marriage, nor does it appear to be transmitted between generations. The parents' school problems were powerful predictors of their own later problems. Elementary school problems predicted high school dropout, and mothers' elementary school truancy predicted their later behavior problems, while fathers' elementary school truancy predicted they would marry a woman with behavior problems. High school dropout predicted crime and drug use for men, behavior problems for women, and a marital breakup, all of which in turn predicted that their children would be high school dropouts.

Each of the events predicted by the parents' own school problems adversely affected their children's chances for graduation, but they did not completely explain the impact of the parent's truancy or graduation on his child's. While there may well be family conditions that we have overlooked, we cannot rule out a direct effect of the school behavior of one generation on that of the next.

The finding of a remaining direct effect which we have not been able to explain by the family conditions in which the child was reared does not prove, but at least leaves viable the hypothesis of a genetic factor. It is instructive, however, to consider what kind of genetic factor there would have to be in order to explain the relationships we have found. The school of explanation headed by Jensen would argue that the reason for the transmission of school problems from one generation to the next is that intelligence is genetically transmitted and that school performance reflects differences in intelligence. While we do indeed have some evidence for the transmission of IQ between generations, that transmission is weak compared to the transmission of both truancy and failure to graduate from high school. Further, parents' low IQ fails to predict any children's school problems other than low IQ. Together, these observations would seem to rule out the possibility that the genetic inheritance of low intelligence explains the transmission of school problems. If there is a gene at work, it may have more to do with ability to conform to rules than with intellectual competence.

The transmission of a likelihood to graduate from high school across generations is remarkably sturdy, surviving a general tendency for graduation to be increasingly common in the younger generation and surviving the fact that early parenthood caused some parents to drop out even though their previous school records had been good enough

to warrant expecting graduation. Thus the decision of an adolescent to drop out of high school would seem to have profound effects both on his or her own career and on the school success of future offspring.

We have studied a black, urban sample subjected to the pressures of poverty, poor job opportunities in both generations, poor schools, and delinquent peers—a setting in which one might expect the continuity between parent and child to be minimal. Yet the continuity is very impressive. Social scientists interested in improving the economic position of minority groups disagree as to whether to focus on the society at large, the community, or the family as the target for improving school success, the crucial first step in improving expected economic position. For historical and political reasons there has developed a view in western social science that sympathy for disadvantaged minorities requires explaining their position entirely in terms of societal racism, and that to identify community and family antecedents of school problems of black children is somehow to "blame the victim." We have no quarrel with the argument that a racist society may be the root cause of poor school performance. What we need to remember, however, is that black children do not homogenously experience difficulties in school. Whatever the root cause that explains the higher <u>average</u> difficulty, as compared with whites, an important source of variation within black children lies in their parents' own history of school performance and later deviance. Whether this observation provides hypotheses that can be translated into intervention techniques capable of raising the group mean remains to be seen. Perhaps only attacking the "root cause" will ultimately decrease the behavior problems in the parents which interact with parents' own school problems to predict school problems

in their children. We have no evidence on this point. The evidence we do have indicates that the parents' particular school behavior is important and that the environment provided by the parent is also important. While we cannot prove these relationships to be causal, it would appear that improving the home environments of children might affect their own performance and thus indirectly improve the chances of their own school success and that of the next generation.

FOOTNOTE

1. The logic of the two questions can be stated more technically. First, we asked whether a model including the adverse factors along with the parents' graduation was more powerful in explaining the child's graduation than was a model based on parents' graduation alone. Our criterion for identifying a more powerful model was that such a model must explain significantly more variance than did the more simple model that used only the parents' graduation. We evaluated the improvement afforded by one model over the other by examining the difference in their maximum likelihood chi squares. Second, we reversed the question and asked if the adverse conditions alone could explain these same contingency tables as well as the combination of the adverse circumstances and the parents' graduation. Thus, we evaluated whether a model with parents' graduation and the adverse circumstances fit the data better than a model which hypothesized the adverse circumstances as the only main effect.

REFERENCE

Robins LN, West PA, Herjanic B: Arrest and delinquency in two generations: A study of black urban families and their children. J Child Psychol Psychiatry 16: 125-140, 1975.

TABLE 1: PARENTS' AGE AT CHILD'S BIRTH, GIVEN FOR THE 159 CHILDREN WHO WERE 18 YEARS OLD BEFORE 1974 AND THUS ELIGIBLE FOR THE TWO GENERATION STUDY

Age	Mother % *	Father %
<16	3	0
<17	8	3
<18	20	7
<19	36	18
<20	55	32
<21	69	49
21+	31	51

*Percentages are cumulative up to the last category (21+). Since the base used is the 159 children, parents are represented multiple times if they had more than one child.

TABLE 2: SIGNIFICANT PREDICTORS* OF EARLY FATHERHOOD

Characteristic	Number in Adult Male Sample with Given Characteristic	Percent of Adult Male Sample with Given Characteristic Who Had an Eligible Child (Age 18 before 1974)†
AGE AT MARRIAGE		%
Before 18	(14)	71
18 or later	(209)	37
AGE LEFT HOME		
Before 18	(57)	51
18 or later	(164)	36
HIGH SCHOOL GRADUATION		
Did not graduate	(128)	46
Did graduate	(95)	34

*Variables not found to be statistically significant predictors of early fatherhood were: IQ, elementary school problems, early sex, early drinking, delinquency, and broken home.

†In the total sample of 223 men, 39% had an eligible child.

TABLE 3: HAS SCHOOL PERFORMANCE CHANGED BETWEEN GENERATIONS?

(Percent in each generational group with evidence of school success or failure)

	Older Generation				Younger Generation			
	Total Sample	Parents of the Younger Generation						
		Fathers	Mothers		Sons		Daughters	
Elementary School Problems	IQ>84† (223)	IQ>84† (80)	(63)	IQ>84 (38)	(70)	IQ>84 (59)	(50)	IQ>84 (40)
	%	%	%	%	%	%	%	%
None	39	45	51	63	33	37	44	57
Held back*	49	46	38	24	64	59	52	40
Truant*	36	29	22	21	13	14	14	8
Both held back and truant	24	20	11	8	10	11	14	5
IQ Scores								
Mean	98	98	90	98	94	99	95	102
High School Graduates	(223) 59	(80) 45	(74) 43	(44) 39	(81) 64	(63) 70	(56) 64	(39) 74

*Students considered held back are those who repeated two or more quarters of school after kindergarten. Students considered truant are those who had five quarters or more during which they attended less than 80% of the time, or who went to reform school. (See discussion in text, page 8.)

†One criterion for inclusion in the original sample of 223 men was an IQ above 84, which was the median IQ score for black males in the St. Louis public schools.

TABLE 4: DOES ELEMENTARY SCHOOL PERFORMANCE STILL PREDICT HIGH SCHOOL GRADUATION?

Percent Graduating

	Older Generation						Younger Generation					
	Total Male Sample		Own Fathers		Own Mothers		Sons				Daughters	
SCHOOL PROBLEMS		IQ>84		IQ>84		IQ>84		IQ>84				IQ>84
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No elementary school prob.	(111)	70	(36)	58	(32)	47	(26)	46	(23)	83	(21)	86	(22)	73	(21)	71
Held back or truant	(65)	60	(28)	57	(21)	33	(10)	20	(40)	65	(30)	73	(21)	71	(16)	81
Both held back and truant	(47)	19	(16)	6	(5)	20	(3)	33	(7)	29	(4)	25	(7)	43	(1)*	0
χ^2:	35.56		13.65		1.85		2.12		11.7		6.58		2.37		3.33	
					n.s.		n.s.						n.s.		n.s.	
Phi:	0.54		0.41		0.18		0.23		0.41		0.35		0.22		0.22	

*For mothers, sons and daughters with IQs above 84, the low number with both school problems precludes an adequate evaluation of the impact on school graduation.

TABLE 5: ASSORTATIVE MATING BETWEEN PARENTS

Father's Characteristics	Percent of Mothers with the "Yes" Characteristic		p
Elementary school			
IQ<90	N	%	
Yes, IQ<90	(18)	61	n.s.
No	(53)	55	
Truancy			
Yes, truant	(18)	39	<.05
No	(45)	16	
Held Back			
Yes, held back	(27)	48	n.s.
No	(36)	31	
High School Graduation			
Yes, graduated	(33)	55	<.05
No	(41)	34	

TABLE 6: TRANSMISSION OF SCHOOL ACHIEVEMENT BETWEEN GENERATIONS

Transmission of:

ELEMENTARY SCHOOL PROBLEMS

Child's School Outcome Given the Parents' School History

	FATHER				MOTHER				BOTH PARENTS					
Being Held Back	Yes, held back		No		Yes, held back		No		Both held back		One		Neither	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
All Children: Yes	(90)	63	(62)	58	(36)	56	(60)	60	(42)	58	(39)	61	(45)	55
	n.s.				n.s.						n.s.			
Being Truant														
	Yes, truant		No		Yes, truant		No		Both truant		One		Neither	
All Children: Yes	(36)	36	(96)	10	(17)	59	(79)	10	(9)	78	(26)	23	(61)	8
	p<.001	ϕ=.30			p<.001	ϕ=.47					p<.001	ϕ=.51		
Sons: Yes	(25)	36	(53)	8	(10)	70	(50)	6	(5)	100	(19)	21	(36)	3
	p<.001	ϕ=.36			p<.001	ϕ=.64					p<.001	ϕ=.71		
Daughters: Yes	(11)	36	(43)	14	(7)	43	(29)	17	(4)	50	(7)	29	(25)	16
	p<.05	ϕ=.23			p<.10	ϕ=.24					n.s.			
IQ: Correlation														
	IQ Score				IQ Score				Mean of Mother's and Father's IQ					
All Children: Yes	.14 p<.05				.40 p<.001				.43 p<.001					
Sons:	.26 p<.01				.37 p<.001				.41 p<.001					
Daughters:	.16 n.s.				.45 p<.001				.47 p<.001					
HIGH SCHOOL GRADUATION														
	Graduate		Nongrad		Graduate		Nongrad		Both Grads		One		Neither	
All Children: Yes	(53)	81	(84)	54	(44)	82	(72)	61	(23)	96	(47)	68	(46)	57
	p<.001	ϕ=.28			p<.01	ϕ=.29					p<.001	ϕ=.31		
Sons: Yes	(31)	87	(50)	50	(29)	79	(40)	66	(16)	94	(26)	73	(27)	59
	p<.001	ϕ=.38			n.s.	ϕ=.13					p<.025	ϕ=.54		
Daughters: Yes	(22)	73	(34)	59	(15)	87	(32)	53	(7)	100	(21)	62	(19)	53
	n.s.	ϕ=.14			p<.05	ϕ=.33					p<.05	ϕ=.33		

TABLE 7: THE TRANSMISSION OF SPECIFIC SCHOOL PROBLEMS VS. THE TRANSMISSION OF GENERAL POOR SCHOOL PERFORMANCE

Parent⟶Child	Percent Children Positive: Both Parents Positive %	One Parent Positive %	Neither %	p	ϕ	Grand N*
A. General Poor School Performance						
Global†⟶Global†	54	24	14	<.01	.36	80
B. Truancy						
Truancy⟶Truancy	78	23	8	<.001	.51	109
Global⟶Truancy	34	9	0	<.001	.40	86
Truancy⟶Global	72	58	14	<.005	.38	89
C. Low IQ						
<90⟶<90	45	27	15	<.05	.22	118
Global⟶<90	37	27	13	<.10	.20	94
<90⟶Global	47	35	21	<.10	.19	95
D. Failure to Graduate						
No Grad⟶No Grad	43	32	4	<.001	.31	116
Global⟶No Grad	23	38	9	<.03	.26	88
No Grad⟶Global	55	29	9	<.001	.38	103

†Positive for "Global" = 2+ of 4 problems: truancy, low IQ, repeated grade, failed to graduate from high school.

*The number on which the ϕ coefficients calculated, i.e., the number of children for which complete information is available for the child and both parents.

TABLE 8: FAMILY CONDITIONS POSSIBLY CONFOUNDING THE TRANSMISSION OF IQ, TRUANCY AND GRADUATION

	Father's IQ		Mother's IQ		Child's IQ	
	p	ϕ	p	ϕ	p	ϕ
A. IQ						
No significant family conditions						
	Father's Truancy		**Mother's Truancy**		**Child's Truancy**	
B. ELEMENTARY SCHOOL TRUANCY	p	ϕ	p	ϕ	p	ϕ
Mother's behavior problems	<.05	.20	<.01	.31	<.001	.51
	Father's Graduation		**Mother's Graduation**		**Child's Graduation**	
C. HIGH SCHOOL GRADUATION	p	ϕ	p	ϕ	p	ϕ
Father's crime	<.001	.39	<.005	.31	<.005	.24
Father's drug use	<.005	.31	n.s.		<.001	.30
Mother's behavior problems	<.01	.29	n.s.		<.001	.30
Child is illegitimate	<.05	.20	<.03	.27	<.05	.16
Home is broken	<.05	.19	n.s.		<.005	.24

TABLE 9: SPECIFIC FAMILY CONDITIONS AS EXPLANATIONS FOR THE PARENT-CHILD TRANSMISSION OF SCHOOL PROBLEMS

	Does this Condition Add Signficantly to the Explanation Afforded by Each Parent's School Problem?	Does Each Parent's School Problem Add Significantly to the Explanation Afforded by this Family Condition?.
Transmission of Truancy from Father to Child		
Mother's behavior problems	Yes, $p<.001$	Yes, $p<.10$
Transmission of Truancy from Mother to Child		
Mother's behavior problems	Yes, $p<.03$	Yes, $p<.03$
Transmission of Graduation from Father to Child		
Father's crime	Yes, $p<.10$	Yes, $p<.01$
Father's drug use	Yes, $p<.03$	Yes, $p<.03$
Mother's behavior problems	Yes, $p<.01$	Yes, $p<.005$
Broken home	Yes, $p<.05$	Yes, $p<.005$
Child's illegitimacy	No	Yes, $p<.005$
Transmission of Graduation from Mother to Child		
Father's crime	Yes, $p<.03$	Yes, $p<.10$
Child's illegitimacy	No	Yes, $p<.03$

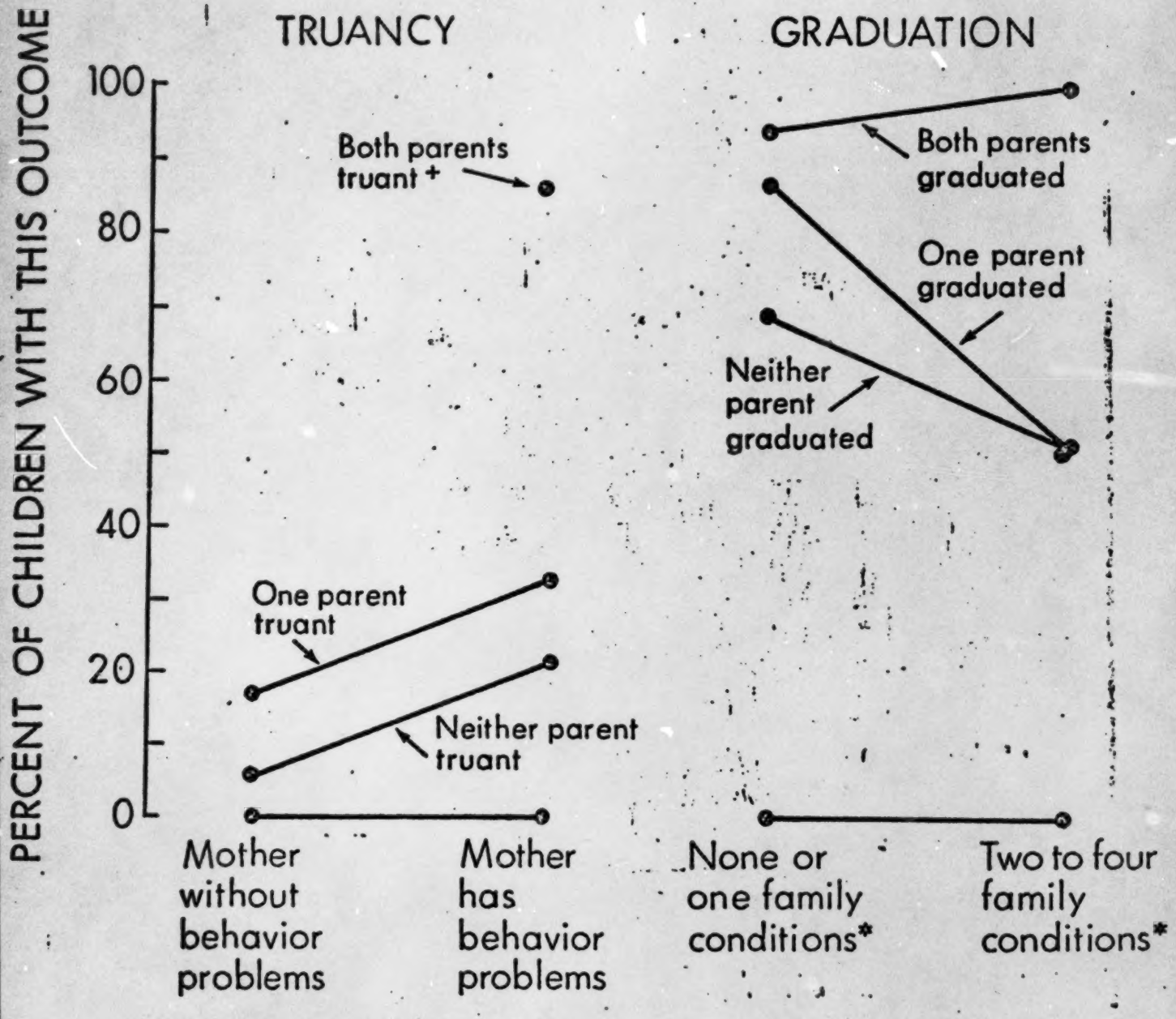
TABLE 10: THE CONTRIBUTION OF SUMMED FAMILY CONDITIONS TO THE TRANSMISSION OF PARENTS' JOINT SCHOOL PROBLEMS

	Do these Conditions Add Significantly to the Explanation Afforded by Parents' School Problems, Considered Jointly?[2]	Can Parents' Joint[2] School Problems Add Significantly to the Explanation Afforded by these Family Conditions, Taken Together?
Transmission of Truancy		
Family Conditions: Mother's behavior problems[1]	Yes, $p<.05$	Yes, $p<.03$
Transmission of Graduation		
Family Conditions: Father's crime, father's drug use, mother's behavior problems, broken home[1]	Yes, $p<.005$	Yes, $p<.03$

[1]Scoring of Family Conditions: For Transmission of Truancy - Mother's behavior problems present or absent. For Transmission of Graduation: None or one of the listed family conditions vs. two or more.

[2]Scoring of Parents' Joint School Problems - Neither parent had it present; one did; or both did.

FIGURE 1: INTERACTION OF TRANSMISSIONS OF SCHOOL PERFORMANCE AND FAMILY CONDITIONS



+ Line omitted because only one child had both parents truant and a mother free of problems. That child did not truant.

* Father's drug abuse, father's crime, broken home, mother's behavior problems.